

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 87-065

WASTE DISCHARGE REQUIREMENTS FOR:

CITY OF MOUNTAIN VIEW AND
BIOSYSTEMS MANAGEMENT INTERNATIONAL
SLUDGE APPLICATION TO LAND
MOUNTAIN VIEW, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter the Board), finds that:

1. City of Mountain View and Biosystems Management International (BMI), hereinafter the dischargers, by application dated April 15, 1987 have applied for waste discharge requirements and a permit to apply stabilized municipal sludge on land.
2. The dischargers propose to apply stabilized (digested) municipal sludge as a soil amendment at Mountain View Shoreline Park (see Attachment A, which is incorporated herein and made a part of this Order). The project site is located on the approximately 694 acre Mountain View Sanitary Landfill of which a 544-acre parcel has ceased accepting wastes since May 1980 and has been converted into the Mountain View Shoreline Park. The remaining 150-acre parcel is still an active municipal landfill and is currently governed by the Board Order No. 78-11 which prescribes waste discharge requirements for the landfill operation.
3. Order No. 78-11 was amended by Order No. 81-26 which requires the City of Mountain View to close the 544-acre parcel according to a Board approved closure plan.
4. The dischargers report that sludge will improve the fertility of the final cover material and thus facilitate establishment of landscaping cover to minimize erosion of the final cover material.
5. Current plans show that stabilized sludges from City of Burlingame, City and County of San Francisco, Southeast Water Pollution Control Plant (SF/SE) and South Bayside System Authority (SBSA) will be used; however, sludge of good quality originating from other municipalities may be approved on a case-by-case basis. Sludges from the aforementioned three sources were analyzed and found to be nonhazardous waste as defined in Title 22, California Administrative Code, Sections 66699 and 66700. The sludge application rate is selected to provide optimum nutrients to promote growth of grass or ground cover.
6. The project site drains into Stevens Creek Tidal Marsh, Permanente Creek and Coast Casey Forebay and eventually into South San Francisco Bay.
7. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for South San Francisco Bay and

contiguous waters.

8. The beneficial uses of South San Francisco Bay and contiguous water bodies are:
 - o Water contact and Non-contact water recreation
 - o Wildlife habitat
 - o Preservation of rare and endangered species
 - o Estuarine habitat
 - o Fish migration and spawning
 - o Industrial service supply
 - o Shellfish harvesting
 - o Navigation
 - o Commercial and sport fishing
9. To control erosion and thus minimize impact on the receiving waters from the runoff from the sludge application areas, the sludge will be disced 6 to 8 inches deep into the soil right after application and the amended area will be promptly seeded and stabilized. All land disturbing work will be done during dry weather months of each year.
10. The Board finds that the potential adverse impacts on beneficial uses stemming from the discharger's project will be mitigated by measures required by this Order.
11. This project consists of maintenance of existing facilities and minor alterations in the condition of land and is therefore categorically exempt from the provisions of the California Environmental Quality Control Act (CEQA) pursuant to Sections 15301 and 15304 of the Resources Agency Guidelines.
12. The discharger and interested agencies and persons have been notified of the Board's intent to issue requirements for the proposed project, and have been provided with the opportunity for a public hearing and the opportunity to submit their written views and recommendations.
13. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that City of Mountain View and Biosystems Management International, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder, shall comply with the following:

A. Prohibitions

1. Neither the transport, handling, storage nor application of sewage sludge shall cause a condition of pollution or nuisance as defined by Section 13050(m) of the California Water Code.
2. No waste that contains contaminants in concentrations in excess of threshold limits set forth in Title 22, CAC, Sections 66699 and 66700 shall be disposed of on the site.

3. The sludge transportation, handling, storage and application shall not cause the following conditions to exist in waters of the State at any place:
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. Bottom deposits or aquatic growth;
 - c. Alteration of temperature, turbidity, or apparent color beyond natural background levels;
 - d. Visible, floating, suspended or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which may cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.
4. Public access shall be prohibited for at least twelve (12) months after all sludge application on an area has been terminated. Public access shall be prohibited for at least six (6) months or until grass cover is fully established whichever is longer for area used for parking lot.
5. Sludge shall not be applied outside of the designated area shown on Attachment A.
6. Sludge shall be applied only on an area that has been properly closed pursuant to Board Order No. 78-11 as amended. Sludge shall not substitute for final cover material.
7. Sludge shall not be applied on the disposal area between November 1 and April 30 of each year.
8. Sludge shall not be applied within 100 feet of the Small Boat Lake, Stevens Creek, Permanente Creek or any drainage channel.
9. Sludge shall be incorporated 6 to 8 inches deep into the soil within 48 hours of application. Disturbed soil shall be seeded and stabilized as soon as possible and no later than October 31 of each year.
10. Sludge application shall not be repeated on the same area.
11. Based upon different nutrient contents from different sludge sources, the sludge application rate shall not exceed the following limits:

	Burlingame	Source SF/SE	SBSA
Application rate* in dry tons per acre	16	29	47


*The application rate shall be evaluated each year to the satisfaction of the Executive Officer based on annual sludge analysis.

12. Agricultural use of the project site is prohibited. Any future owners shall also be made aware of this prohibition.
13. The sludge application and soil amendment operation shall be done in a manner that will not damage the integrity of the underlying clay seal.

B. Provisions

1. The discharger shall comply with all sections of this Order immediately upon adoption except as stipulated in Provision B.2 below:
2. The dischargers shall comply with Prohibition A.12 by submitting a copy of the property deed with a restriction against the use of the property for growing animal feed and/or food-chain crops.
3. The discharger shall file with the Board quarterly self-monitoring reports performed according to any self-monitoring program issued by the Executive Officer.
4. These requirements do not exempt the operator of this waste disposal facility from compliance with the Board Orders Nos. 78-11 and 81-26, any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraint on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.
5. In the event that sources of sludge other than those specified in Finding 5 are proposed for soil amendment on the site, prior approval shall be obtained from the Executive Officer of the Board.

I, Roger B. James, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on June 17, 1987.


 ROGER B. JAMES
 Executive Officer

Attachments:

- A. Location Map
- B. Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

CITY OF MOUNTAIN VIEW

AND

BIOSYSTEMS MANAGEMENT INTERNATIONAL

SANTA CLARA COUNTY

ORDER NO. 87-065

PART A

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16. This Self-Monitoring Program is issued in accordance with Section B.3 of regional Board Order No. 87-065.

The principal purposes of a self-monitoring program by a waste discharger are: (1) to document compliance with waste discharge requirements and prohibitions established by the board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent standards of performance, pretreatment and toxicity standard and other standards, and (4) to prepare water and wastewater quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed by a laboratory approved for these analyses by the State Department of Health. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.
2. Receiving water(s) refers to any water which actually or potentially receives surface water which pass over or through waste materials or contaminated soils. In this case the Stevens Creek, Permanente Creek and South San Francisco Bay and contiguous waters are considered the receiving waters.
3. Standard observations refer to:
 - a. Receiving Waters
 - 1) Discoloration and turbidity: description of color, source, and size of affected area.
 - 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
 - 3) Evidence of beneficial use: presence of water associated wildlife.
 - 4) Flow rate.

- 5) Weather conditions: wind direction and estimated velocity, total precipitation during the previous five days and on the day of observation.
- b. Perimeter of the waste management unit
 - 1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area and flow rate. (Show affected area on map)
 - 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
 - 3) Evidence of erosion.
- c. The waste management unit
 - 1) Evidence of ponded water at any point on the waste management facility.
 - 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
 - 3) Evidence of erosion.
4. Standard analysis and measurements refer to:
 - a. pH
 - b. Electrical conductivity (EC)
 - c. Total dissolved solids (TDS)
 - d. Total phenols
 - e. Chloride
 - f. Total organic carbon
 - g. Nitrate nitrogen
 - h. Total Kjeldahl nitrogen
 - i. Settleable solids, ml/l/hr
 - j. Heavy metals including cadmium, copper, lead, nickel and zinc

D. SCHEDULE OF SAMPLING, ANALYSIS, AND OBSERVATIONS

The discharger is required to perform sampling, analysis, and observations according to the schedule specified in PART B, and the requirements of Article 5 of Subchapter 15.

E. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the discharger, and shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.

2. Date and time of sampling.
3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.
4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used. A reference to a specific section of a reference required in PART A Section B is satisfactory.
5. Calculation of results.
6. Results of analyses, and detection limits for each analyses.

F. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Written self-monitoring reports shall be filed each calendar quarter by the fifteenth day of the following month. In addition, an annual report shall be filed as indicated in the following item F.2. The reports shall be comprised of the following:

- a. Letter of transmittal

A letter transmitting the essential points in each self-monitoring report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the past quarter and actions taken or planned for correcting the violations, such as operation modifications and/or facilities expansion. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last quarter this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

- b. Each report shall include a compliance evaluation summary sheet. This sheet shall contain:

The sample mean and the sample variance for all sample sets taken from all compliance points, and shall determine if the difference between the mean of each sample set and the water quality protection standard is significant at the 0.05 level using Cochran's Approximation to the Behrens-Fisher Student's t-test as described in Appendix II of Subchapter 15. The discharger may propose an alternative statistical procedure to be used in making this determination pursuant Section 2555(h)(3) of Subchapter 15. If a statistically significant difference is found this shall be reported as a suspected requirement violation in the letter of transmittal.

- c. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.
 - d. A summary and certification of the standard observations for the receiving waters, the waste management unit, and the perimeter of the waste management unit.
 - e. Laboratory statements of results of analyses specified in PART B must be included in each report. The laboratory director shall sign the laboratory statement of analytical results.
 - f. A daily log recording sludge applied. The log shall include the following information:
 - (a) Volume (cubic yards) and weight (dry tons) of sludge applied.
 - (b) Source(s) of sludge.
 - (c) Percent solids representative of each load.
 - (d) Area (acres) of application clearly shown on a map of the spreading area.
 - (e) Sludge application rate
 - a. Tons of wet sludge per acre
 - b. Tons of dry sludge per acre
 - (f) Heavy metal application rate, lb/acre
2. By January 31 of each year the discharger shall submit an annual report to the Regional Board covering the previous calendar year. This report shall contain:
- a. Tabular and graphical summaries of the monitoring data obtained during the previous year.
 - b. A comprehensive discussion of the compliance record, and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements.

PART B

1. DESCRIPTION OF MONITORING STATIONS AND SCHEDULE OF MONITORING

A. On-site Observations

STATION	DESCRIPTION	PARAMETER	FREQUENCY
V-1 thru V-'n'	Located on the sludge application area as delineated by a 500 foot grid network	Standard observations for the waste management unit	Quarterly
P-1 thru P-'n'	Located at equidistant intervals not exceeding 500 feet around the perimeter of the application area	Standard observations for the perimeter	Quarterly

B. Receiving Water Monitoring and Observation

STATION	DESCRIPTION	PARAMETER	FREQUENCY
S-1	At any point in the Stevens Creek at which all drainage from the sludge application area to the Stevens Creek is present	Standard analysis	Monthly
S-2	At any point in the Permanente Creek at which all drainage from the sludge application area to the Permanente Creek is present	Standard analysis	Monthly
S-3	At any point in the Coast Casey forebay at which all drainage from the sludge application area to the Coast Casey forebay is present	Standard analysis	Monthly

C. Sludge Monitoring

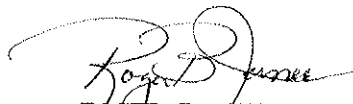
Each year, prior to the operating season, a representative composited sludge sample for each sludge source shall be analyzed for Total Threshold Limit Concentration (TTLC) and Soluble Threshold Limit Concentration (STLC) of constituents set forth in Title 22, California Administrative Code, Sections 66699 and 66700. During the operating season, representative composited sludge sample for each sludge source

shall be analyzed according to the following schedule:

Constituent	Unit	frequency of Sampling and Analysis
pH		Monthly
Percent solids		Monthly
Total nitrogen (as N)	% of dry solids	Monthly
Total phosphorous	% of dry solids	Monthly
Cadmium	mg/kg dry weight	Monthly
Copper	mg/kg dry weight	Monthly
Lead	mg/kg dry weight	Monthly
Nickel	mg/kg dry weight	Monthly
Zinc	mg/kg dry weight	Monthly
Polychlorinated Biphenyls (PCB's)	mg/kg dry weight	Monthly

I, Roger B. James, Executive Officer, hereby certify that the foregoing self-monitoring program:

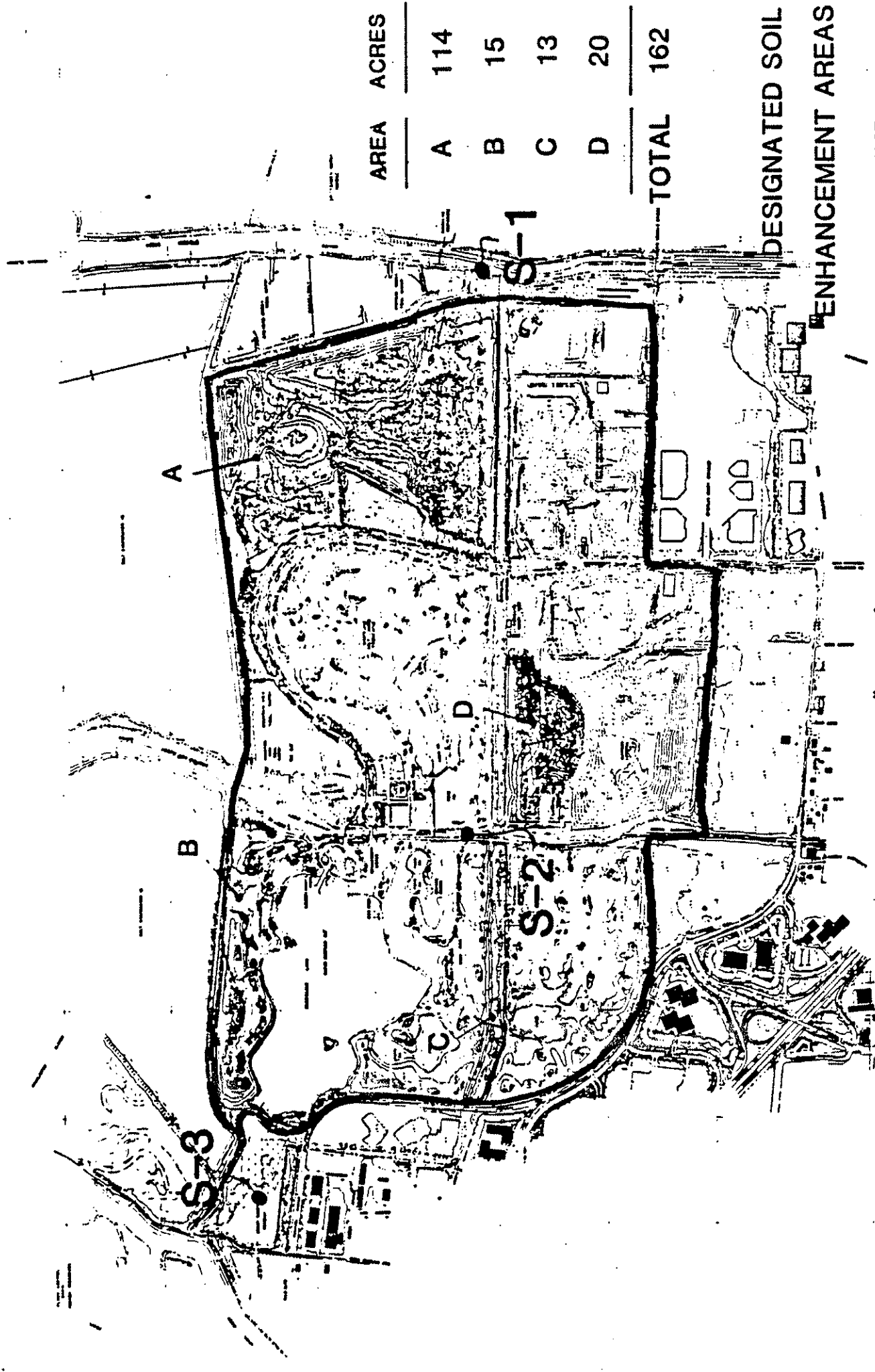
1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with sludge disposal specifications established in the Board's Order No. 87-065.
2. Is effective in the date shown below.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.


ROGER B. JAMES
Executive Officer

Effective Date June 17, 1987

Attachment:

Map of the Mountain View Shoreline Park



AREA	ACRES
A	114
B	15
C	13
D	20
TOTAL	162

DESIGNATED SOIL
ENHANCEMENT AREAS

Scale: 1" = 960'